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Video Gaming Machine with Jackpot Feature

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ABSTRACT

A video gaming machine offering to a player a primary game having a primary game outcome and a secondary game having a bonus jackpot prize outcome; said primary game
5 having an outcome determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said secondary game associated with credits bet on said primary game; said secondary game offering a jackpot
10 prize amount whose face value is multiplied by a factor which is a function of said credits bet in the event of a win of said secondary game being accorded to said machine.

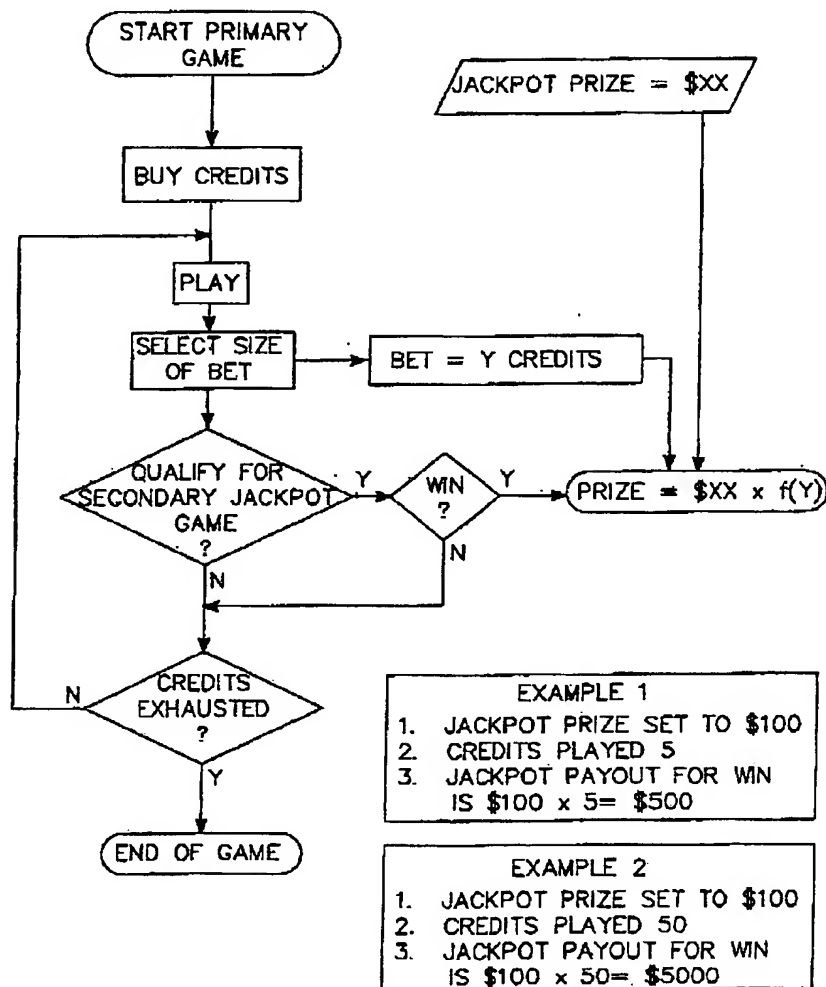


Fig. 4

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COMPLETE SPECIFICATION
FOR A STANDARD PATENT

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Invention Title: Video Gaming Machine with Jackpot Feature

The following statement is a full description of this invention, including the best method of performing it known to us

VIDEO GAMING MACHINE WITH JACKPOT FEATURE

The present invention relates to a jackpot feature for use in association with one or more gaming machines and, more particularly, but not exclusively, gaming machines which
5 utilize a video display panel to simulate mechanical reels.

BACKGROUND

Gaming machines in use today derive from mechanical-reel
10 based machines which, in some cases, were termed poker machines.

The gaming machines rely on two or more reels mounted on a common axis for rotation and which have indicia on their periphery which can correspond to symbols from a pack of
15 cards or other indicia representing wildcard features or jackpot prize features.

In use the reels are caused to spin so as to cause a random or substantially random pattern of indicia. The award of a prize, for example in the form of a payout from the
20 machine, is determined by predetermined particular resulting patterns of indicia interpreted according to the rules pertinent to that particular machine or game.

In recent times the mechanical reels have been replaced by an electronic simulation displayed on a CRT or equivalent
25 video display panel, reliant on the operation of software

which models the behaviour of the original mechanical reel systems.

All such machines allow a player to play at least a primary game wherein payout is determined by the identity of the indicia forming a particular pattern as the result of a spin of the reels. The probability of a payout on these primary games is frequently, these days, regulated by Government authorities.

In order to enhance player enjoyment and to provide game possibilities and outcomes separate from and not otherwise regulated according to the primary game, many such machines provide the possibility of a jackpot game or other secondary game or jackpot prize. Such secondary or jackpot games or jackpot prizes are triggered for play either merely by the playing of the primary game or, in other circumstances, as a result of particular outcomes of the primary game.

A problem with at least some types of current jackpot or secondary games or jackpot prizes, is that they tend to encourage a player of the gaming machine to increase the amount bet on the primary game with a view to increasing the probability of the player either becoming eligible for or actually winning the jackpot or secondary game or jackpot prize.

Such encouragement to increase the amount bet can lead players to bet amounts greater than they initially intended to bet or can afford.

It is an object of the present invention to overcome or
5 ameliorate one or more of the abovementioned disadvantages or at least provide a useful alternative.

BRIEF DESCRIPTION OF INVENTION

10 Accordingly, in one broad form of the invention there is provided a video gaming machine offering to a player a primary game having a primary game outcome and a secondary game having a bonus jackpot prize outcome; said primary game having an outcome determined by alignment of indicia on
15 predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said secondary game associated with credits bet on said primary game; said secondary game offering a jackpot prize amount whose face value is multiplied by a factor which
20 is a function of said credits bet in the event of a win of said secondary game being accorded to said machine.

Preferably in the event that a play of said primary game qualifies for a play of said secondary game, the probability of a win of the secondary game is independent of the credits
25 bet on the primary game.

Preferably a player automatically qualifies for a play of said secondary game by participation in said primary game.

Preferably said bonus prize outcome includes a face value bonus prize which is displayed on or in association
5 with said gaming machine.

Preferably a play of said primary game can trigger said secondary game.

In a further broad form of the invention there is provided a video gaming machine offering to a player a game
10 having an outcome determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said game conferring on said player the possibility of winning a jackpot prize independent of the game outcome on
15 the occurrence within the said machine of a predetermined event, where the probability of the occurrence of the said event is independent of the credits bet in said game; said jackpot prize being assigned a value calculated as the face value of said jackpot prize multiplied by a factor which is a
20 function of said credits bet in said game.

Preferably said jackpot prize face value is a constant.

Preferably said jackpot prize face value increases incrementally as a function of the volume of play on said machine.

Preferably the jackpot prize is linked to a stand-alone machine.

In yet a further broad form of the invention there is provided a linked array of video gaming machines offering to
5 players a primary game having a primary game outcome and a secondary game having a bonus jackpot prize outcome; said primary game having an outcome determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row
10 alignment of indicia; said secondary game associated with credits bet on said primary game; said secondary game offering a jackpot prize amount whose face value is multiplied by a factor which is a function of said credits bet in the event of a win of said secondary game being
15 accorded to said machine.

Preferably in the event that a player of said primary game qualifies for a play of said secondary game, the probability of a win of the secondary game is independent of the credits bet on the primary game.

20 Preferably the conferring of a win of the secondary game is a function of a central control unit.

Preferably said multiplying factor applied to said face value of a jackpot prize is a function of the credits bet on the primary game.

Preferably said multiplying factor applied to said face value of a jackpot prize is a function of the volume of play on the said array of machines.

Preferably said face value of said jackpot prize is
5 displayed on a central display unit linked to said central control unit.

Preferably said face value of said jackpot prize is a constant independent of the volume of play on said array of gaming machines.

10 Preferably said face value of said jackpot prize increases incrementally as a function of the volume of play on said array of gaming machines.

In yet a further broad form of the invention there is provided a linked array of video gaming machines offering to
15 players games having a outcomes determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said games conferring on said player the possibility of winning a jackpot prize independent of a
20 game outcome on the occurrence within a central control unit of a predetermined event, where the probability of the occurrence of the said event is independent of the credits bet in said games; said jackpot prize being assigned a value calculated as the face value of said jackpot prize multiplied

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by a factor which is a function of said credits bet in said games.

Preferably said face value of said jackpot prize is displayed on a central display unit linked to said central
5 control unit.

Preferably said face value of said jackpot prize is a constant independent of the volume of play on said array of gaming machines.

Preferably said face value of said jackpot prize
10 increases incrementally as a function of the volume of play on said array of gaming machines.

BRIEF DESCRIPTION OF DRAWINGS

15 Embodiments of the present invention will now be described with reference to the accompanying drawings wherein:

Figure 1 is a generalized diagram of a prior art gaming machine player interface;

20 Figure 2 is a generalized diagram of a gaming machine player interface in accordance with a first preferred embodiment of the present invention;

Figure 3 is a perspective view of a stand-alone gaming machine in accordance with a preferred embodiment of the
25 present invention;

Figures 4 to 6 are flow charts of the protocols of the gaming machine of Figure 3;

Figure 7 is a perspective view of a further preferred embodiment of the present invention;

5 Figure 8 is a flow chart of the protocol of the gaming machines of Figure 7.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

With reference to Fig. 1 there is illustrated a prior art player interface 10. In this instance the interface 10
10 comprises a primary game interface 11 and a secondary game interface 12. The primary game interface 11 is displayed to a player as an array 12 of symbols 13, notionally aligned in columns C1, C2, C3 and rows R1, R2, R3.

15 In this instance the secondary game interface 12 comprises a visual display adapted to display indicia 14 representing a sum of money commonly termed a "jackpot" prize amount.

In the prior art arrangement of Fig. 1 a player (not
20 shown) initiates a play of the primary game via primary game interface 11 by placing bets as to the outcome of the alignment of symbols 13 following a play of the game comprising a randomized realignment of the symbols 13

10

typically viewable as the apparent spinning of reels of symbols by columns C1, C2, C3.

Usually the player may determine the amount of money to be bet. Many modern machines include the notion of "credits" bet where a "credit" represents a predetermined sum of money, for example \$1.00.

As illustrated in Fig. 1 the player is automatically eligible for the secondary game simply by participating in the primary game.

10 More particularly example 1 in Fig. 1 illustrates the situation where a player bets credits to the value of \$10.00. In this prior art game the probability of the current jackpot prize of \$100.00 being won on that play of the primary game may be 1 in 1000. The magnitude of the jackpot prize win, 15 should a win be conferred, is the amount illustrated in the jackpot prize display as communicated via indicia 14 which, in this instance, is \$100.00.

If the player of the game of Fig. 1 should bet a higher amount on a subsequent game, for example bet credits to the 20 value of \$100.00 (ten times the credits bet of example 1) then the implementation of the prior art game is such that the player, by virtue of increasing his or her credits bet on the primary game improves their probability of a jackpot prize win of the secondary game, in this instance the

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probability improves to a chance of 1 in 100. However, should a win be conferred, the magnitude of the jackpot prize win remains at \$100.00.

It will be understood that a game implemented in this way seeks to communicate to the player that a larger amount bet on the primary game will improve the probability of a win of the jackpot prize amount of the secondary game.

With reference to Fig. 2 a game interface in accordance with a first preferred embodiment of the invention is illustrated and wherein like components are numbered as for the prior art example of Fig. 1 except in the 100 series. So, for example, primary game interface 11 becomes primary game interface 111. Secondary game interface 12 becomes secondary game interface 112.

In this example, as for the prior art example, a player (not shown) qualifies for the secondary game 112 merely by instigating a play of the primary game 111.

However, in this instance, the probability of a win of the secondary game 112 remains constant irrespective of the amount bet. So, in example 1 of Fig. 2 the player may place a credits bet of \$10.00. The probability of a jackpot prize win is set at 1 in 1000. Should a win be conferred the magnitude of the jackpot win is the face value 120 illustrated in the secondary game display 112.

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In example 2 of Fig. 2, should the player increase the credits bet by a factor of 10, in this case to a credits bet value of \$100.00, the probability of the jackpot prize win nevertheless remains constant at 1 in 1000.

5 However, the magnitude of the jackpot prize win, if conferred, will be multiplied by a factor of 10 (commensurate with the proportional increase in credits bet as compared with Example 1) resulting in a jackpot prize payout of ten times the face value 120 which is to say \$1,000.00 in this
10 example.

 The credits bet may be used as a direct multiplier of the jackpot face value as in this example, or the credits bet may be used as input to determine a function as modulator of the jackpot prize face value. In either case the probability
15 of the jackpot prize win is independent of the size of any bet.

 It may be observed that this arrangement could be considered as fair but without leading a player to increase the amount bet merely to increase the probability of a win.
20 It can be considered "fair" in the sense that, in the event of a jackpot prize win, there is an increased return commensurate with the increased number of credits bet. However, it is "fair" without forcing underlying pressure

onto the player to increase credits bet simply to improve the probability of a win of the secondary game.

In this first preferred embodiment of the invention shown in Figure 3, the primary game is played on a stand-alone electronic gaming machine 200 provided with a primary game interface 211 and a secondary game interface 213 where the jackpot prize benefit and the details of the secondary or jackpot prize game is described 212 and the secondary game, when triggered is played.

With reference to the flow chart of Figure 4, a player of a stand-alone machine with a jackpot feature according to the invention buys a number of credits and selects sizes of bets. The bet placed for a particular game cycle is used to determine a function as a modulator of the face value of the jackpot prize offered. If a secondary bonus or jackpot game is offered to the player and the game won, the modulated jackpot prize is conferred. The modulating function may be either a direct multiplier using the number of credits bet or some preferred formula using the credits bet as input.

In a second preferred embodiment a stand-alone gaming machine with a jackpot feature operates according to the sequence as shown in the flow chart of Figure 5. In this embodiment the jackpot prize is not linked to a secondary game but is triggered at a set probability of a predetermined

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event occurring within the game protocol of the machine. However the size of the jackpot prize is determined by the credits bet on the game immediately preceding the triggering event.

5 Again the credits bet may be used as a direct multiplier of the face value of the jackpot prize or as an input to a preferred formula to determine the payout value.

In a third preferred embodiment of the present invention, the jackpot prize is progressive, that is the
10 value of the jackpot prize incrementally increases as a function of the value of play on the machine for the duration of play during which the jackpot prize is not won. The probability of the jackpot prize being won either by the winning of a secondary or bonus jackpot game, or by the
15 triggering of the jackpot by some predetermined event, remains a constant.

With reference to the flow chart of Figure 6, a jackpot prize has an initial face value. For any bet of Y credits, an increment $f(Y)$ is added to the accumulating value of the
20 jackpot prize.

When the secondary game or jackpot prize is triggered by a predetermined event, the value of the bet placed immediately preceding the trigger is now applied to modulate the accumulated value of the jackpot prize.

In a fourth preferred embodiment of the present invention, the jackpot prize may increase incrementally to some publicly advertised maximum attainable value. In this case a relationship may be established linking the difference
5 between the current accumulated value of the jackpot prize and the known maximum attainable value with the probability that the prize will be won. Thus for example, the probability of the prize being won increases in inverse proportion to the difference between the current accumulated value and the
10 maximum known attainable value. The probability remains independent of the value of bets placed by a player.

It will be understood that the winning a progressive jackpot prize may be conferred either by the winning of a secondary or bonus game or alternately directly at the
15 occurrence of a predetermined event within the machine's game protocol. In both cases the probabilities of either being offered a secondary or bonus game and the winning of it, or gaining the jackpot prize direct, are constants, independent of the bets placed.

20 In a further preferred embodiment of the invention shown in Figure 7, a plurality of gaming machines 300 is linked electronically to a central control unit 311 administering the jackpot prize system. The jackpot prize may be a fixed face value, or be progressive in which case the face value of

the jackpot prize increases incrementally based on the combined volumes of play on the linked machines. In each case the jackpot prize face value 312 is displayed on a central display unit 313 visible from all the interlinked machines.

5 The flowchart of Figure 8 illustrates the protocol of a system of linked gaming machines where the jackpot prize is progressively incremented as a function of the integrated volume of credits bet by the players.

10 When the jackpot is won by the player of a particular machine, either by winning a secondary bonus or jackpot game or directly, it is that player's bet placed immediately prior to the jackpot triggering event which is used as either a direct multiplier of the accumulated value of the jackpot or as an input function to modulate that value.

15 The probability of any one player triggering the jackpot prize is equal for all machines and is independent of the volume or value of betting on any machine.

20 The above describes only some embodiments of the present invention and modifications, obvious to those skilled in the art, can be made thereto without departing from the scope and spirit of the present invention.

The claims defining the invention are as follows:

1. A video gaming machine offering to a player a primary game having a primary game outcome and a secondary game having a bonus jackpot prize outcome; said primary game
5 having an outcome determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said secondary game associated with credits bet on said primary game; said secondary
10 game offering a jackpot prize amount whose face value is multiplied by a factor which is a function of said credits bet in the event of a win of said secondary game being accorded to said machine.
2. The machine of Claim 1 wherein, in the event that a play
15 of said primary game qualifies for a play of said secondary game, the probability of a win of the secondary game is independent of the credits bet on the primary game.
3. The machine of Claim 1 or Claim 2 wherein a player
20 automatically qualifies for a play of said secondary game by participation in said primary game.
4. The machine of any previous claim wherein said bonus prize outcome includes a face value bonus prize which is displayed on or in association with said gaming machine.

5. The gaming machine of any previous claim wherein a play of said primary game can trigger said secondary game.
6. A video gaming machine offering to a player a game having an outcome determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said game conferring on said player the possibility of winning a jackpot prize independent of the game outcome on the occurrence within the said machine of a predetermined event, where the probability of the occurrence of the said event is independent of the credits bet in said game; said jackpot prize being assigned a value calculated as the face value of said jackpot prize multiplied by a factor which is a function of said credits bet in said game.
7. The gaming machine of Claim 6 wherein, the said jackpot prize face value is a constant.
8. The gaming machine of Claim 6 wherein, the said jackpot prize face value increases incrementally as a function of the volume of play on said machine.
9. The gaming machine of Claim 6 wherein, the jackpot prize is linked to a stand-alone machine.
10. A linked array of video gaming machines offering to players a primary game having a primary game outcome and

a secondary game having a bonus jackpot prize outcome;
said primary game having an outcome determined by
alignment of indicia on predetermined locations on
simulated reels; said alignment of indicia including at
5 least one horizontal row alignment of indicia; said
secondary game associated with credits bet on said
primary game; said secondary game offering a jackpot
prize amount whose face value is multiplied by a factor
which is a function of said credits bet in the event of
10 a win of said secondary game being accorded to said
machine.

11. The machine of Claim 10 wherein, in the event that a
player of said primary game qualifies for a play of said
secondary game, the probability of a win of the
15 secondary game is independent of the credits bet on the
primary game.

12. The linked array of gaming machines of Claim 11 wherein
the conferring of a win of the secondary game is a
function of a central control unit.

20 13. The linked array of gaming machines of Claim 12 wherein
said multiplying factor applied to said face value of a
jackpot prize is a function of the credits bet on the
primary game.

14. The linked array of gaming machines of Claim 12 wherein said multiplying factor applied to said face value of a jackpot prize is a function of the volume of play on the said array of machines.
- 5 15. The linked array of gaming machines of Claim 10 wherein said face value of said jackpot prize is displayed on a central display unit linked to said central control unit.
- 10 16. The linked array of gaming machines of Claim 15 wherein said face value of said jackpot prize is a constant independent of the volume of play on said array of gaming machines.
- 15 17. The linked array of gaming machines of Claim 15 wherein said face value of said jackpot prize increases incrementally as a function of the volume of play on said array of gaming machines.
- 20 18. A linked array of video gaming machines offering to players games having a outcomes determined by alignment of indicia on predetermined locations on simulated reels; said alignment of indicia including at least one horizontal row alignment of indicia; said games conferring on said player the possibility of winning a jackpot prize independent of a game outcome on the occurrence within a central control unit of a

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predetermined event, where the probability of the occurrence of the said event is independent of the credits bet in said games; said jackpot prize being assigned a value calculated as the face value of said
5 jackpot prize multiplied by a factor which is a function of said credits bet in said games.

19. The linked array of gaming machines of Claim 17 wherein said face value of said jackpot prize is displayed on a central display unit linked to said central control
10 unit.

20. The linked array of gaming machines of Claim 18 wherein said face value of said jackpot prize is a constant independent of the volume of play on said array of gaming machines.

15 21. The linked array of gaming machines of Claim 18 wherein said face value of said jackpot prize increases incrementally as a function of the volume of play on said array of gaming machines.

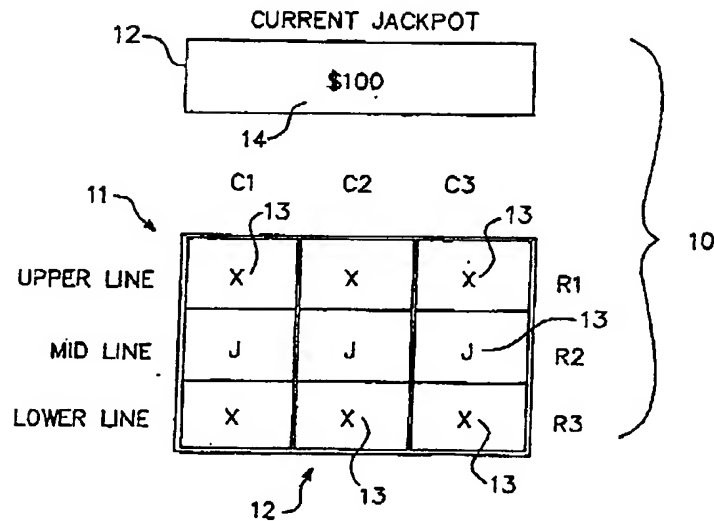
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DATED: 2 May 2003

KONAMI AUSTRALIA PTY LTD

by their Patent Attorneys:

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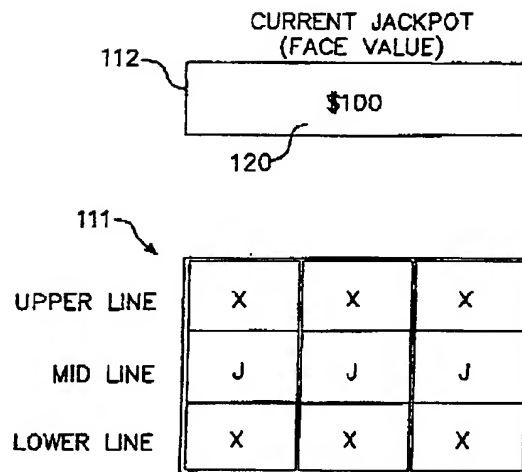


Example 1. Credits bet = \$10
 Probability of jackpot win = 1:1000
 Magnitude of jackpot win = \$100

Example 2. Credits bet = \$100
 Probability of jackpot win = 1:100
 Magnitude of jackpot win = \$100

PRIOR ART

Fig. 1



Example 1. Credits bet = \$10
Probability of jackpot win = 1:1000
Magnitude of jackpot win = \$100

Example 2. Credits bet = \$100
Probability of jackpot win = 1:1000
Magnitude of jackpot win = \$1000

Fig. 2

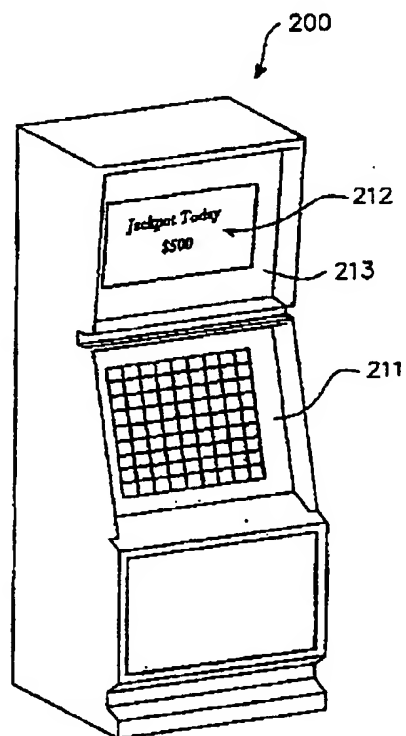


Fig. 3

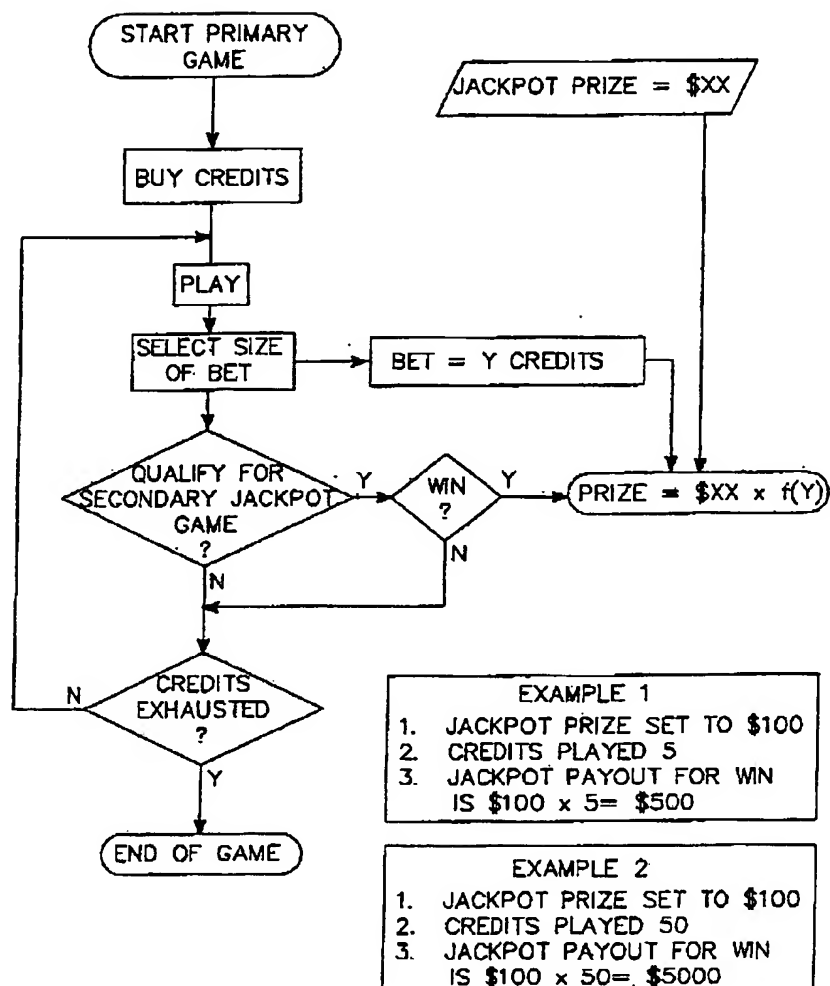


Fig. 4

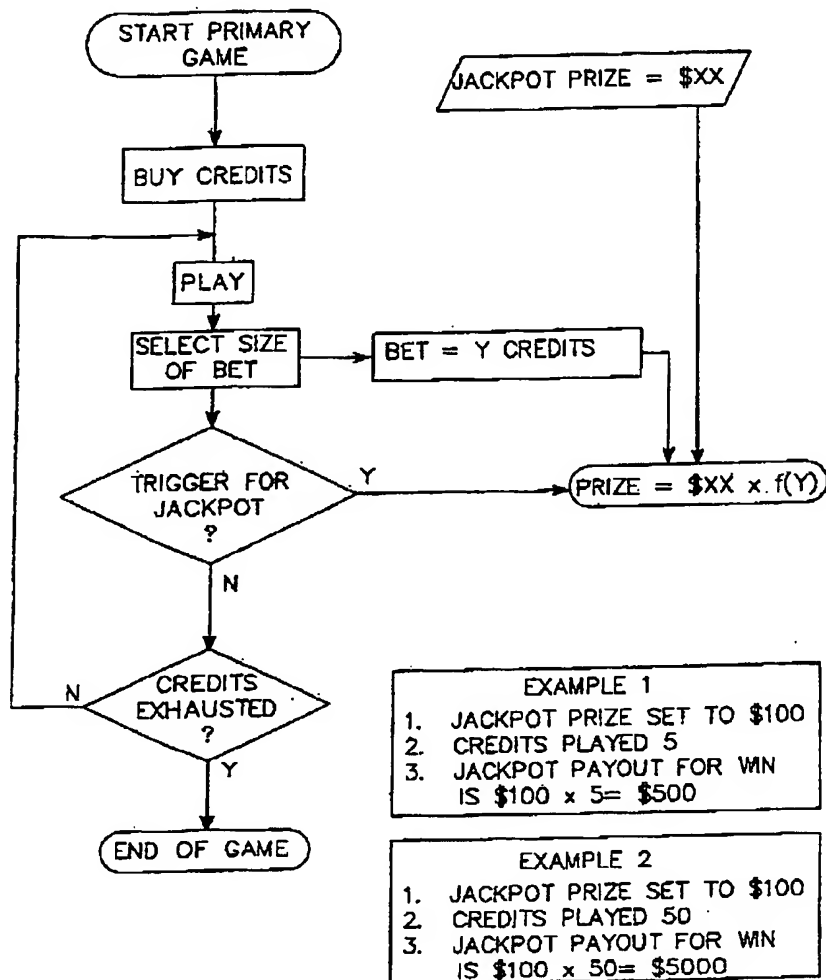
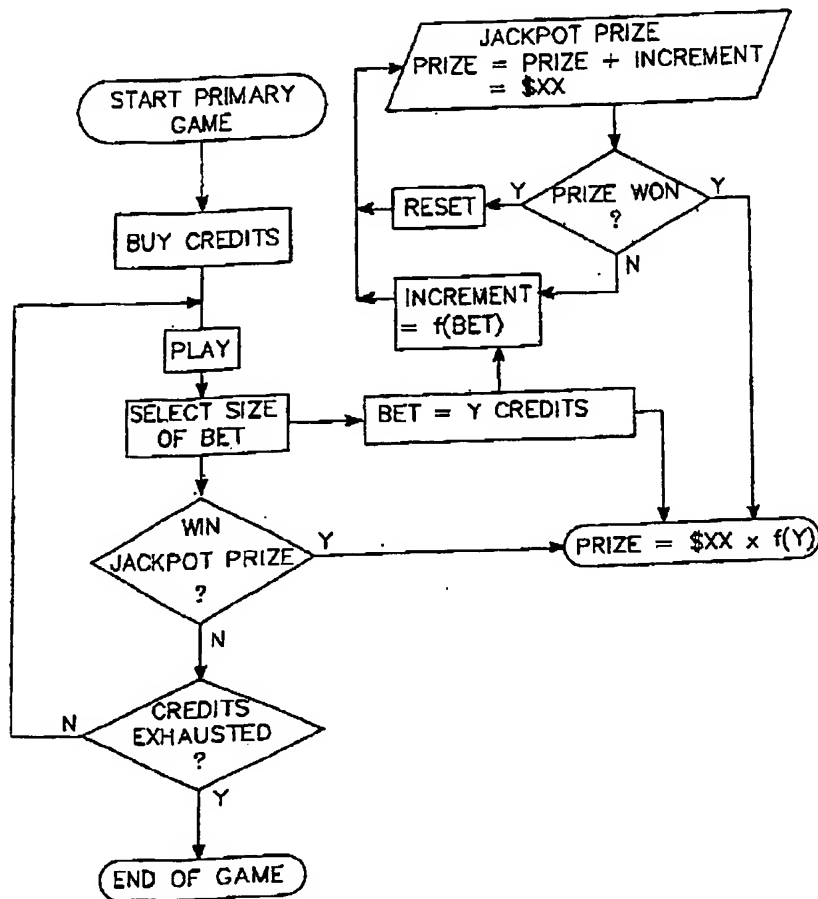


Fig. 5



EXAMPLE

1. JACKPOT PRIZE STARTS AT \$20
2. CREDITS PLAYED FIRST BET = 5
3. JACKPOT INCREMENTED BY 5 x (function)
4. CREDITS PLAYED SECOND BET = 10
5. JACKPOT INCREMENTED BY 10 x (function)
6. CREDITS PLAYED Nth BET = 2
7. JACKPOT TRIGGERED
8. PAYOUT = 2(\$20 + SUM of INCREMENTS)

Fig. 6

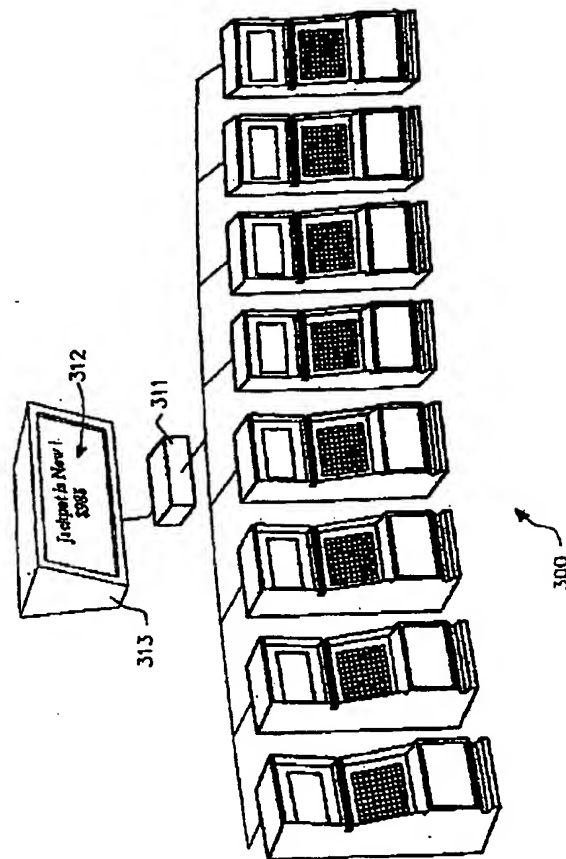


Fig. 7

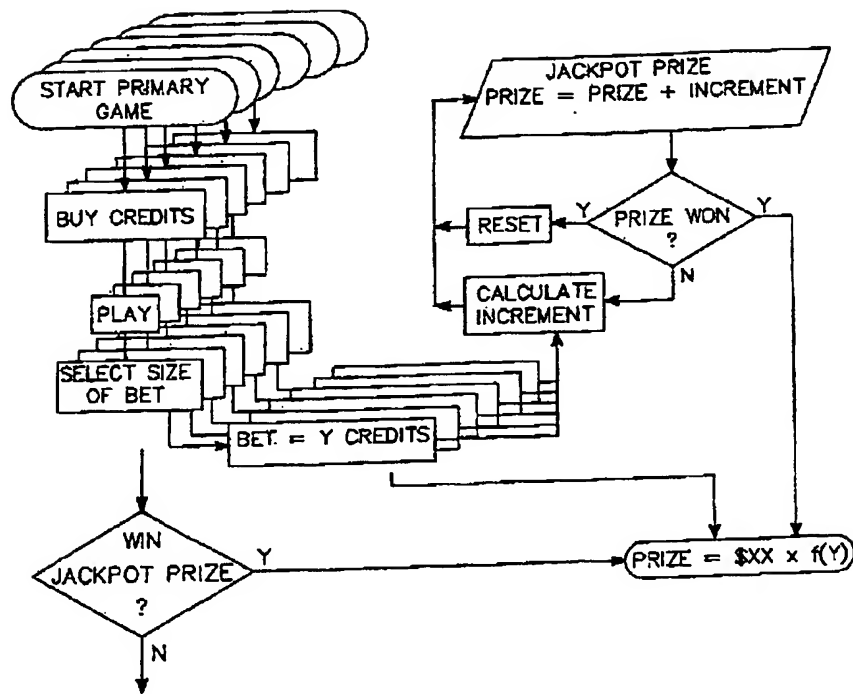


Fig. 8

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